

Sequence Listing

<110> Baker, Kevin
Botstein, David
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Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

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35 40 45
Asp Asp Asp Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu
50 55 60
Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75
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80 85 90
Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
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Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120
Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
125 130 135
Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150
Leu Arg Arg Leu Tyr Leu Ser His Asn Gln Leu Ser Glu Ile Pro
155 160 165
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170 175 180
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185 190 195
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Asn	Ile	Pro	Arg	Val	Arg	Glu	Ile	His	Leu	Glu	Asn	Asn	Lys	Leu	
				290					295					300	
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Phe	Cys	Pro	Thr	Val	Pro	Lys	Met	Lys	Lys	Ser	Leu	Tyr	Ser	Ala	
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				35					40					45
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Asp	Glu	Thr	Trp	His	Pro	Asp	Leu	Gly	Gln	Pro	Phe	Gly	Val	Met
				65					70					75

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Thr Arg Gly Pro Gly Arg Val Ser Cys	Lys Asn Ile Lys Pro Glu	95	100	105
Cys Pro Thr Pro Ala Cys Gly Gln Pro	Arg Gln Leu Pro Gly His	110	115	120
Cys Cys Gln Thr Cys Pro Gln Glu Arg	Ser Ser Ser Glu Arg Gln	125	130	135
Pro Ser Gly Leu Ser Phe Glu Tyr Pro	Arg Asp Pro Glu His Arg	140	145	150
Ser Tyr Ser Asp Arg Gly Glu Pro Gly	Ala Glu Glu Arg Ala Arg	155	160	165
Gly Asp Gly His Thr Asp Phe Val Ala	Leu Leu Thr Gly Pro Arg	170	175	180
Ser Gln Ala Val Ala Arg Ala Arg Val	Ser Leu Leu Arg Ser Ser	185	190	195
Leu Arg Phe Ser Ile Ser Tyr Arg Arg	Leu Asp Arg Pro Thr Arg	200	205	210
Ile Arg Phe Ser Asp Ser Asn Gly Ser	Val Leu Phe Glu His Pro	215	220	225
Ala Ala Pro Thr Gln Asp Gly Leu Val	Cys Gly Val Trp Arg Ala	230	235	240
Val Pro Arg Leu Ser Leu Arg Leu Leu	Arg Ala Glu Gln Leu His	245	250	255
Val Ala Leu Val Thr Leu Thr His Pro	Ser Gly Glu Val Trp Gly	260	265	270
Pro Leu Ile Arg His Arg Ala Leu Ala	Ala Glu Thr Phe Ser Ala	275	280	285
Ile Leu Thr Leu Glu Gly Pro Pro Gln	Gln Gly Val Gly Gly Ile	290	295	300
Thr Leu Leu Thr Leu Ser Asp Thr Glu	Asp Ser Leu His Phe Leu	305	310	315
Leu Leu Phe Arg Gly Leu Leu Glu Pro	Arg Ser Gly Gly Leu Thr	320	325	330
Gln Val Pro Leu Arg Leu Gln Ile Leu	His Gln Gly Gln Leu Leu	335	340	345
Arg Glu Leu Gln Ala Asn Val Ser Ala	Gln Glu Pro Gly Phe Ala	350	355	360
Glu Val Leu Pro Asn Leu Thr Val Gln	Glu Met Asp Trp Leu Val			

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395	400	405
Leu Gln Ser Val Leu Cys Gly Ala Asp Ala Leu Ile Pro Val Gln		
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Thr Gly Ala Ala Gly Ser Ala Ser Leu Thr Leu Leu Gly Asn Gly		
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Ser Leu Ile Tyr Gln Val Gln Val Val Gly Thr Ser Ser Glu Val		
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Thr Val Leu Cys His Met Ala Gly Leu Gln Pro Gly Gly His Thr		
470	475	480
Ala Val Gly Ile Cys Pro Gly Leu Gly Ala Arg Gly Ala His Met		
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Gly His Ser Ala Arg His Asp Thr Leu Pro Val Pro Leu Ala Gly		
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545	550	555
Trp Leu Ser Leu Asp Thr His Cys His Leu His Tyr Glu Val Leu		
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Pro Glu Leu Leu Arg His Leu Ala Lys Gly Met Ala Ser Leu Met		
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His Ile Ala Asn Gln Cys Glu Val Gly Gly Leu Arg Leu Glu Ala		
650	655	660

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Ser	Ala	Ala	Pro	Pro	Val	Val	Pro	Gly	Leu	Pro	Ala	Leu	Ala	Pro	680	685	690
Ala	Lys	Pro	Gly	Gly	Pro	Gly	Arg	Pro	Arg	Asp	Pro	Asn	Thr	Cys	695	700	705
Phe	Phe	Glu	Gly	Gln	Gln	Arg	Pro	His	Gly	Ala	Arg	Trp	Ala	Pro	710	715	720
Asn	Tyr	Asp	Pro	Leu	Cys	Ser	Leu	Cys	Thr	Cys	Gln	Arg	Arg	Thr	725	730	735
Val	Ile	Cys	Asp	Pro	Val	Val	Cys	Pro	Pro	Pro	Ser	Cys	Pro	His	740	745	750
Pro	Val	Gln	Ala	Pro	Asp	Gln	Cys	Cys	Pro	Val	Cys	Pro	Glu	Lys	755	760	765
Gln	Asp	Val	Arg	Asp	Leu	Pro	Gly	Leu	Pro	Arg	Ser	Arg	Asp	Pro	770	775	780
Gly	Glu	Gly	Cys	Tyr	Phe	Asp	Gly	Asp	Arg	Ser	Trp	Arg	Ala	Ala	785	790	795
Gly	Thr	Arg	Trp	His	Pro	Val	Val	Pro	Pro	Phe	Gly	Leu	Ile	Lys	800	805	810
Cys	Ala	Val	Cys	Thr	Cys	Lys	Gly	Gly	Thr	Gly	Glu	Val	His	Cys	815	820	825
Glu	Lys	Val	Gln	Cys	Pro	Arg	Leu	Ala	Cys	Ala	Gln	Pro	Val	Arg	830	835	840
Val	Asn	Pro	Thr	Asp	Cys	Cys	Lys	Gln	Cys	Pro	Val	Gly	Ser	Gly	845	850	855
Ala	His	Pro	Gln	Leu	Gly	Asp	Pro	Met	Gln	Ala	Asp	Gly	Pro	Arg	860	865	870
Gly	Cys	Arg	Phe	Ala	Gly	Gln	Trp	Phe	Pro	Glu	Ser	Gln	Ser	Trp	875	880	885
His	Pro	Ser	Val	Pro	Pro	Phe	Gly	Glu	Met	Ser	Cys	Ile	Thr	Cys	890	895	900
Arg	Cys	Gly	Ala	Gly	Val	Pro	His	Cys	Glu	Arg	Asp	Asp	Cys	Ser	905	910	915
Leu	Pro	Leu	Ser	Cys	Gly	Ser	Gly	Lys	Glu	Ser	Arg	Cys	Cys	Ser	920	925	930
Arg	Cys	Thr	Ala	His	Arg	Arg	Pro	Pro	Glu	Thr	Arg	Thr	Asp	Pro	935	940	945
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 <223> Synthetic oligonucleotide probe

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 ggcgcacagc acgcagcgca tcaccccgaa tggctc 36

 <210> 12
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 12
 gtgctgccca tccgttctga gaagga 26

 <210> 13

<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 13
gcagggtgct caaacaggac ac 22

<210> 14
<211> 3231
<212> DNA
<213> Homo Sapien

<400> 14
ggcggagcag ccctagccgc caccgtcgct ctgcagctc tcgtcgccac 50
tgccaccgcc gccgcgtca ctgcgtcctg gctccggtc ccgcgccctc 100
ccggccggcc atgcagcccc gccgcgccc gccgcccggg gcgcagctgc 150
tgcccgcgtt ggccctgctg ctgctgctgc tcggagcggg gccccgaggc 200
agctccctgg ccaaccgggt gccgcgcgc cccttgtctg cggccggggc 250
gtgcgccgcg cagccctgcc ggaatggggg tgtgtgcacc tcgcgccctg 300
agccggaccc gcagcaccgc gccccgcgc gcgagcctgg ctacagctgc 350
acctgccccg ccgggatctc cggcgccaac tgccagcttg ttgcagatcc 400
ttgtgccagc aaccctgtgc accatggcaa ctgcagcagc agcagcagca 450
gcagcagcga tggctacctc tgcatttgca atgaaggcta tgaaggctcc 500
aactgtgaac aggcacttcc cagtctccca gccactggct ggaccgaatc 550
catggcacc cgcagcttc agcctgttcc tgctactcag ggcctgaca 600
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cccagatatt gcctgtggga atgccagttc taacagctct gcgggtggcc 750
gcctggtatc ctttgaagtg ccacagaaca cctcagtcaa gattcggcaa 800
gatgccactg cctcactgat tttgctctgg aaggtcacgg ccacaggatt 850
ccaacagtgc tccctcatag atggacgaag tgtgaccccc cttcaggctt 900
cagggggact ggtcctcctg gaggagatgc tcgccttggg gaataatcac 950
tttattggtt ttgtgaatga ttctgtgact aagtctattg tggctttgcg 1000
cttaactctg gtggtgaagg tcagcacctg tgtgccgggg gagagtcacg 1050

caaatgactt ggagtgttca ggaaaaggaa aatgcaccac gaagccgtca 1100
 gaggcaactt tttcctgtac ctgtgaggag cagtacgtgg gtactttctg 1150
 tgaagaatac gatgcttgcc agaggaaacc ttgccaaaac aacgcgagct 1200
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 cctagacca tgcagaaatg gagcaacatg catttccagt ctcaagtggat 1350
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 ttctttaaaa agtcaagggg tctatattgt gagtaaatta aatttacatt 3050
 tgagttgttt gttgctaaga ggtagtaaat gtaagagagt actggttcct 3100
 tcagtagtga gtatttctca tagtgcagct ttatttatct ccaggatgtt 3150
 tttgtggctg tatttgattg atatgtgctt cttctgattc ttgctaattt 3200
 ccaaccatat tgaataaatg tgatcaagtc a 3231

<210> 15
 <211> 737
 <212> PRT
 <213> Homo Sapien

<400> 15
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 1 5 10 15
 Ala Leu Ala Leu Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly
 20 25 30
 Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
 35 40 45
 Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
 50 55 60
 Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
 65 70 75
 Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
 80 85 90
 Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
 95 100 105
 Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

110	115	120
Cys Ile Cys Asn Glu Gly Tyr Glu Gly	Pro Asn Cys Glu Gln Ala	
125	130	135
Leu Pro Ser Leu Pro Ala Thr Gly Trp	Thr Glu Ser Met Ala Pro	
140	145	150
Arg Gln Leu Gln Pro Val Pro Ala Thr	Gln Glu Pro Asp Lys Ile	
155	160	165
Leu Pro Arg Ser Gln Ala Thr Val Thr	Leu Pro Thr Trp Gln Pro	
170	175	180
Lys Thr Gly Gln Lys Val Val Glu Met	Lys Trp Asp Gln Val Glu	
185	190	195
Val Ile Pro Asp Ile Ala Cys Gly Asn	Ala Ser Ser Asn Ser Ser	
200	205	210
Ala Gly Gly Arg Leu Val Ser Phe Glu	Val Pro Gln Asn Thr Ser	
215	220	225
Val Lys Ile Arg Gln Asp Ala Thr Ala	Ser Leu Ile Leu Leu Trp	
230	235	240
Lys Val Thr Ala Thr Gly Phe Gln Gln	Cys Ser Leu Ile Asp Gly	
245	250	255
Arg Ser Val Thr Pro Leu Gln Ala Ser	Gly Gly Leu Val Leu Leu	
260	265	270
Glu Glu Met Leu Ala Leu Gly Asn Asn	His Phe Ile Gly Phe Val	
275	280	285
Asn Asp Ser Val Thr Lys Ser Ile Val	Ala Leu Arg Leu Thr Leu	
290	295	300
Val Val Lys Val Ser Thr Cys Val Pro	Gly Glu Ser His Ala Asn	
305	310	315
Asp Leu Glu Cys Ser Gly Lys Gly Lys	Cys Thr Thr Lys Pro Ser	
320	325	330
Glu Ala Thr Phe Ser Cys Thr Cys Glu	Glu Gln Tyr Val Gly Thr	
335	340	345
Phe Cys Glu Glu Tyr Asp Ala Cys Gln	Arg Lys Pro Cys Gln Asn	
350	355	360
Asn Ala Ser Cys Ile Asp Ala Asn Glu	Lys Gln Asp Gly Ser Asn	
365	370	375
Phe Thr Cys Val Cys Leu Pro Gly Tyr	Thr Gly Glu Leu Cys Gln	
380	385	390
Ser Lys Ile Asp Tyr Cys Ile Leu Asp	Pro Cys Arg Asn Gly Ala	
395	400	405

Thr Cys Ile Ser	Ser Leu Ser Gly Phe	Thr Cys Gln Cys Pro Glu	410	415	420
Gly Tyr Phe Gly	Ser Ala Cys Glu Glu	Lys Val Asp Pro Cys Ala	425	430	435
Ser Ser Pro Cys	Gln Asn Asn Gly Thr	Cys Tyr Val Asp Gly Val	440	445	450
His Phe Thr Cys	Asn Cys Ser Pro Gly	Phe Thr Gly Pro Thr Cys	455	460	465
Ala Gln Leu Ile	Asp Phe Cys Ala Leu	Ser Pro Cys Ala His Gly	470	475	480
Thr Cys Arg Ser	Val Gly Thr Ser Tyr	Lys Cys Leu Cys Asp Pro	485	490	495
Gly Tyr His Gly	Leu Tyr Cys Glu Glu	Glu Tyr Asn Glu Cys Leu	500	505	510
Ser Ala Pro Cys	Leu Asn Ala Ala Thr	Cys Arg Asp Leu Val Asn	515	520	525
Gly Tyr Glu Cys	Val Cys Leu Ala Glu	Tyr Lys Gly Thr His Cys	530	535	540
Glu Leu Tyr Lys	Asp Pro Cys Ala Asn	Val Ser Cys Leu Asn Gly	545	550	555
Ala Thr Cys Asp	Ser Asp Gly Leu Asn	Gly Thr Cys Ile Cys Ala	560	565	570
Pro Gly Phe Thr	Gly Glu Glu Cys Asp	Ile Asp Ile Asn Glu Cys	575	580	585
Asp Ser Asn Pro	Cys His His Gly Gly	Ser Cys Leu Asp Gln Pro	590	595	600
Asn Gly Tyr Asn	Cys His Cys Pro His	Gly Trp Val Gly Ala Asn	605	610	615
Cys Glu Ile His	Leu Gln Trp Lys Ser	Gly His Met Ala Glu Ser	620	625	630
Leu Thr Asn Met	Pro Arg His Ser Leu	Tyr Ile Ile Ile Gly Ala	635	640	645
Leu Cys Val Ala	Phe Ile Leu Met Leu	Ile Ile Leu Ile Val Gly	650	655	660
Ile Cys Arg Ile	Ser Arg Ile Glu Tyr	Gln Gly Ser Ser Arg Pro	665	670	675
Ala Tyr Glu Glu	Phe Tyr Asn Cys Arg	Ser Ile Asp Ser Glu Phe	680	685	690
Ser Asn Ala Ile	Ala Ser Ile Arg His	Ala Arg Phe Gly Lys Lys			

695	700	705
Ser Arg Pro Ala Met Tyr Asp Val Ser	Pro Ile Ala Tyr Glu Asp	
710	715	720
Tyr Ser Pro Asp Asp Lys Pro Leu Val	Thr Leu Ile Lys Thr Lys	
725	730	735

Asp Leu

<210> 16
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 16
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 17
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 17
 caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 18
 <211> 508
 <212> DNA
 <213> Homo Sapien

<400> 18
 ctctggaagg tcacggccac aggattccaa cagtgtctccc tcatagatgg 50
 acgaaagtgt gacccccctt tcaggctttc aggggggactg gtctctcttg 100
 aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
 tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggatgaagg 200
 cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagggttcag 250
 gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300
 tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
 gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
 aagatgggag caatttcacc tgtgtttgcc ttcttggtta tactggagag 450
 ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 19

<211> 508

<212> DNA

<213> Homo Sapien

<400> 19

ctctggaagg tcacggccac aggattccaa cagtgtctccc tcatagatgg 50
acgaaagtgt gacccccctt tcaggttttc agggggactg gtcctcctgg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggagaaggt 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtggttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttcctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttcctgggta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500
taggggag 508

<210> 20

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 20

ctctggaagg tcacggccac agg 23

<210> 21

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 21

ctcagttcgg ttggcaaagc tctc 24

<210> 22

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

cagtgtctccc tcatagatgg acgaaagtgt gacccccctt tcaggcgaga 50

gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

gctgagtcctg ctgctcctgc tgctgctgct ccagcctgta acctgtgcct 50

acaccacgcc agggcccccc agagccctca ccacgctggg cggccccaga 100

gcccacacca tgccggggcac ctacgctccc tcgaccacac tcagtagtcc 150

cagcaccacag ggcctgcaag agcaggcacg ggccctgatg cgggacttcc 200

cgctcgtgga cggccacaac gacctgcccc tggtcctaag gcaggtttac 250

cagaaagggc tacaggatgt taacctgcgc aatttcagct acggccagac 300

cagcctggac aggccttagag atggcctcgt gggcgcccag ttctggtcag 350

cctatgtgcc atgccagacc caggaccggg atgccctgcg cctcacctg 400

gagcagattg acctcatacg ccgcatgtgt gcctcctatt ctgagctgga 450

gcttgtgacc tcggctaaag ctctgaacga cactcagaaa ttggcctgcc 500

tcatcggtgt agaggggtggc cactcgctgg acaatagcct ctccatctta 550

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 ccacatggcc ccagtccttg cagttgtggc caccttccca gtccttattc 1400
 tgtggctctg atgacccagt tagtcctgcc agatgtcact gtagcaagcc 1450
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 aataaatggt ttggacatag 1520

<210> 24

<211> 433

<212> PRT

<213> Homo Sapien

<400> 24

Met	Pro	Gly	Thr	Tyr	Ala	Pro	Ser	Thr	Thr	Leu	Ser	Ser	Pro	Ser					
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Thr	Gln	Gly	Leu	Gln	Glu	Gln	Ala	Arg	Ala	Leu	Met	Arg	Asp	Phe					
			20						25					30					
Pro	Leu	Val	Asp	Gly	His	Asn	Asp	Leu	Pro	Leu	Val	Leu	Arg	Gln					
			35						40					45					
Val	Tyr	Gln	Lys	Gly	Leu	Gln	Asp	Val	Asn	Leu	Arg	Asn	Phe	Ser					
			50						55					60					
Tyr	Gly	Gln	Thr	Ser	Leu	Asp	Arg	Leu	Arg	Asp	Gly	Leu	Val	Gly					
			65						70					75					
Ala	Gln	Phe	Trp	Ser	Ala	Tyr	Val	Pro	Cys	Gln	Thr	Gln	Asp	Arg					
			80						85					90					
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg					
			95						100					105					
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys					
			110						115					120					
Ala	Leu	Asn	Asp	Thr	Gln	Lys	Leu	Ala	Cys	Leu	Ile	Gly	Val	Glu					
			125						130					135					
Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile	Leu	Arg	Thr	Phe					
			140						145					150					
Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His	Thr	Cys	Asn					
			155						160					165					
Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser	Phe	Tyr					
			170						175					180					

Asn Asn Ile Ser	Gly 185	Leu Thr Asp Phe	Gly 190	Glu Lys Val Val	Ala 195
Glu Met Asn Arg	Leu 200	Gly Met Met Val	Asp 205	Leu Ser His Val	Ser 210
Asp Ala Val Ala	Arg 215	Arg Ala Leu Glu	Val 220	Ser Gln Ala Pro	Val 225
Ile Phe Ser His	Ser 230	Ala Ala Arg Gly	Val 235	Cys Asn Ser Ala	Arg 240
Asn Val Pro Asp	Asp 245	Ile Leu Gln Leu	Leu 250	Lys Lys Asn Gly	Gly 255
Val Val Met Val	Ser 260	Leu Ser Met Gly	Val 265	Ile Gln Cys Asn	Pro 270
Ser Ala Asn Val	Ser 275	Thr Val Ala Asp	His 280	Phe Asp His Ile	Lys 285
Ala Val Ile Gly	Ser 290	Lys Phe Ile Gly	Ile 295	Gly Gly Asp Tyr	Asp 300
Gly Ala Gly Lys	Phe 305	Pro Gln Gly Leu	Glu 310	Asp Val Ser Thr	Tyr 315
Pro Val Leu Ile	Glu 320	Glu Leu Leu Ser	Arg 325	Gly Trp Ser Glu	Glu 330
Glu Leu Gln Gly	Val 335	Leu Arg Gly Asn	Leu 340	Leu Arg Val Phe	Arg 345
Gln Val Glu Lys	Val 350	Gln Glu Glu Asn	Lys 355	Trp Gln Ser Pro	Leu 360
Glu Asp Lys Phe	Pro 365	Asp Glu Gln Leu	Ser 370	Ser Ser Cys His	Ser 375
Asp Leu Ser Arg	Leu 380	Arg Gln Arg Gln	Ser 385	Leu Thr Ser Gly	Gln 390
Glu Leu Thr Glu	Ile 395	Pro Ile His Trp	Thr 400	Ala Lys Leu Pro	Ala 405
Lys Trp Ser Val	Ser 410	Glu Ser Ser Pro	His 415	Met Ala Pro Val	Leu 420
Ala Val Val Ala	Thr 425	Phe Pro Val Leu	Ile 430	Leu Trp Leu	

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 25
 agttctggtc agcctatgtg cc 22

<210> 26
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 26
 cgtgatggcg tctttgtcca tggg 24

<210> 27
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 27
 ctccaccaat cccgatgaac ttgg 24

<210> 28
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 28
 gagcagattg acctcatatg ccgatgtgt gcctcctatt ctgagctgga 50

<210> 29
 <211> 1416
 <212> DNA
 <213> Homo Sapien

<400> 29
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 gatccgcggc cggaattct aaaccaacat gccgggcacc tacgtccct 100
 cgaccacact cagtagtccc agcaccagg gcctgcaaga gcaggcacgg 150
 gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgcccct 200
 ggtcctaagg caggtttacc agaaagggt acaggatgtt aacctgcgca 250
 atttcagcta cggccagacc agcctggaca ggcttagaga tggcctcgtg 300
 ggcgcccagt tctggtcagc ctatgtgcca tgccagaccc aggaccggga 350
 tgcctgcgc ctcaccctgg agcagattga cctcatatgc cgcattgtgtg 400

cctcctattc tgagctggag cttgtgacct cggctaaagc tctgaacgac 450
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 cagtctcaga gtctctcccc caccctgaca aaactcacac atgcccaccg 1350
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 aaaaccaag gacacc 1416

<210> 30

<211> 446

<212> PRT

<213> Homo Sapien

<400> 30

Met	Pro	Gly	Thr	Tyr	Ala	Pro	Ser	Thr	Thr	Leu	Ser	Ser	Pro	Ser
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Thr	Gln	Gly	Leu	Gln	Glu	Gln	Ala	Arg	Ala	Leu	Met	Arg	Asp	Phe
			20						25					30

Pro	Leu	Val	Asp	Gly	His	Asn	Asp	Leu	Pro	Leu	Val	Leu	Arg	Gln
				35					40					45

Val	Tyr	Gln	Lys	Gly	Leu	Gln	Asp	Val	Asn	Leu	Arg	Asn	Phe	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50					55					60				
Tyr	Gly	Gln	Thr	Ser	Leu	Asp	Arg	Leu	Arg	Asp	Gly	Leu	Val	Gly
				65					70					75
Ala	Gln	Phe	Trp	Ser	Ala	Tyr	Val	Pro	Cys	Gln	Thr	Gln	Asp	Arg
				80					85					90
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg
				95					100					105
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys
				110					115					120
Ala	Leu	Asn	Asp	Thr	Gln	Lys	Leu	Ala	Cys	Leu	Ile	Gly	Val	Glu
				125					130					135
Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile	Leu	Arg	Thr	Phe
				140					145					150
Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His	Thr	Cys	Asn
				155					160					165
Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser	Phe	Tyr
				170					175					180
Asn	Asn	Ile	Ser	Gly	Leu	Thr	Asp	Phe	Gly	Glu	Lys	Val	Val	Ala
				185					190					195
Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser
				200					205					210
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val
				215					220					225
Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg
				230					235					240
Asn	Val	Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly
				245					250					255
Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro
				260					265					270
Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys
				275					280					285
Ala	Val	Ile	Gly	Ser	Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp
				290					295					300
Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr
				305					310					315
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu
				320					325					330
Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg
				335					340					345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu	350	355	360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser	365	370	375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln	380	385	390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala	395	400	405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His	410	415	420
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser	425	430	435
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr	440	445	

<210> 31
 <211> 1790
 <212> DNA
 <213> Homo Sapien

<400> 31
 cgcccagcga cgtgcgggag gcctggcccc cgccctcccg cgcccgccct 50
 gcgtcccgcg cctgcgcca ccgcgcgga gccgcagccc gccgcgcgcc 100
 ccgggcagcg ccggccccat gcccgcgggc cgccggggcc ccgcgcgcca 150
 atccgcgcgg cggcgcgcgc cgttgcctgc cctgctgctg ctgctctgcg 200
 tcctcggggc gccgcgagcc ggatcaggag ccacacagc tgtgatcagt 250
 cccagggatc ccacgcttct catcggtctc tcctgctgg ccacctgctc 300
 agtgcacgga gaccaccag gagccaccgc cgagggcctc tactggacct 350
 tcaacggggc ccgcctgccc cctgagctct ccggtgtact caacgcctcc 400
 accttggtc tggcctggc caacctcaat gggccaggc agcggtcggg 450
 ggacaacctc gtgtgccacg ccggtgacgg cagcatcctg gctggctcct 500
 gcctctatgt tggcctgccc ccagagaaac ccgtcaacat cagctgctgg 550
 tccaagaaca tgaaggactt gacctgccgc tggacgccag gggcccacgg 600
 ggagaccttc ctccacacca actactccct caagtacaag cttaggtggg 650
 atggccagga caacacatgt gaggagtacc acacagtggg gcccactcc 700
 tgccacatcc ccaaggacct ggctctcttt acgccctatg agatctgggt 750
 ggaggccacc aaccgcctgg gctctgcccc ctccgatgta ctcacgctgg 800

atatcctgga tgtggtgacc acggaccccc cgcccgacgt gcacgtgagc 850
 cgcgtcgggg gcctggagga ccagctgagc gtgcgctggg tgtcgccacc 900
 cgccctcaag gatttctctt ttcaagccaa ataccagatc cgctaccgag 950
 tggaggacag tgtggactgg aaggtggtgg acgatgtgag caaccagacc 1000
 tcttgccgcc tggccggcct gaaacccggc accgtgtact tcgtgcaagt 1050
 gcgctgcaac ccctttggca tctatggctc caagaaagcc gggatctgga 1100
 gtgagtggag ccaccccaca gccgcctcca ctccccgcag tgagcgcccg 1150
 ggcccgggcg gcggggcggtg cgaaccgcgg ggcgagagc cgagctcggg 1200
 gccggtgcgg cgcgagctca agcagttcct gggctggctc aagaagcacg 1250
 cgtactgtc caacctcagc ttccgcctct acgaccagtg gcgagcctgg 1300
 atgcagaagt cgcacaagac ccgcaaccag gacgagggga tcctgccctc 1350
 gggcagacgg ggcaacggcg gaggtcctgc cagataagct gtaggggctc 1400
 aggccaccct ccctgccacg tggagacgca gaggccgaac ccaaactggg 1450
 gccacctctg taccctcact tcagggcacc tgagccaccc tcagcaggag 1500
 ctgggggtggc ccctgagctc caacggccat aacagctctg actcccacgt 1550
 gaggccacct ttgggtgcac cccagtgggt gtgtgtgtgt gtgtgaggg 1600
 tggttgagtt gcctagaacc cctgccaggg ctgggggtga gaaggggagt 1650
 cattactccc cattacctag ggcccctcca aaagagtcct tttaaataaa 1700
 tgagctatctt aggtgctgtg attgtgaaaa aaaaaaaaaa aaaaaaaaaa 1750
 aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32

<211> 422

<212> PRT

<213> Homo Sapien

<400> 32

Met	Pro	Ala	Gly	Arg	Arg	Gly	Pro	Ala	Ala	Gln	Ser	Ala	Arg	Arg
1				5					10					15
Pro	Pro	Pro	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu	Cys	Val	Leu	Gly
			20					25						30
Ala	Pro	Arg	Ala	Gly	Ser	Gly	Ala	His	Thr	Ala	Val	Ile	Ser	Pro
			35					40						45
Gln	Asp	Pro	Thr	Leu	Leu	Ile	Gly	Ser	Ser	Leu	Leu	Ala	Thr	Cys
			50					55						60

Ser	Val	His	Gly	Asp	Pro	Pro	Gly	Ala	Thr	Ala	Glu	Gly	Leu	Tyr	65	70	75
Trp	Thr	Leu	Asn	Gly	Arg	Arg	Leu	Pro	Pro	Glu	Leu	Ser	Arg	Val	80	85	90
Leu	Asn	Ala	Ser	Thr	Leu	Ala	Leu	Ala	Leu	Ala	Asn	Leu	Asn	Gly	95	100	105
Ser	Arg	Gln	Arg	Ser	Gly	Asp	Asn	Leu	Val	Cys	His	Ala	Arg	Asp	110	115	120
Gly	Ser	Ile	Leu	Ala	Gly	Ser	Cys	Leu	Tyr	Val	Gly	Leu	Pro	Pro	125	130	135
Glu	Lys	Pro	Val	Asn	Ile	Ser	Cys	Trp	Ser	Lys	Asn	Met	Lys	Asp	140	145	150
Leu	Thr	Cys	Arg	Trp	Thr	Pro	Gly	Ala	His	Gly	Glu	Thr	Phe	Leu	155	160	165
His	Thr	Asn	Tyr	Ser	Leu	Lys	Tyr	Lys	Leu	Arg	Trp	Tyr	Gly	Gln	170	175	180
Asp	Asn	Thr	Cys	Glu	Glu	Tyr	His	Thr	Val	Gly	Pro	His	Ser	Cys	185	190	195
His	Ile	Pro	Lys	Asp	Leu	Ala	Leu	Phe	Thr	Pro	Tyr	Glu	Ile	Trp	200	205	210
Val	Glu	Ala	Thr	Asn	Arg	Leu	Gly	Ser	Ala	Arg	Ser	Asp	Val	Leu	215	220	225
Thr	Leu	Asp	Ile	Leu	Asp	Val	Val	Thr	Thr	Asp	Pro	Pro	Pro	Asp	230	235	240
Val	His	Val	Ser	Arg	Val	Gly	Gly	Leu	Glu	Asp	Gln	Leu	Ser	Val	245	250	255
Arg	Trp	Val	Ser	Pro	Pro	Ala	Leu	Lys	Asp	Phe	Leu	Phe	Gln	Ala	260	265	270
Lys	Tyr	Gln	Ile	Arg	Tyr	Arg	Val	Glu	Asp	Ser	Val	Asp	Trp	Lys	275	280	285
Val	Val	Asp	Asp	Val	Ser	Asn	Gln	Thr	Ser	Cys	Arg	Leu	Ala	Gly	290	295	300
Leu	Lys	Pro	Gly	Thr	Val	Tyr	Phe	Val	Gln	Val	Arg	Cys	Asn	Pro	305	310	315
Phe	Gly	Ile	Tyr	Gly	Ser	Lys	Lys	Ala	Gly	Ile	Trp	Ser	Glu	Trp	320	325	330
Ser	His	Pro	Thr	Ala	Ala	Ser	Thr	Pro	Arg	Ser	Glu	Arg	Pro	Gly	335	340	345
Pro	Gly	Gly	Gly	Ala	Cys	Glu	Pro	Arg	Gly	Gly	Glu	Pro	Ser	Ser			

	350		355		360
Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys					
	365		370		375
Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln					
	380		385		390
Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp					
	395		400		405
Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro					
	410		415		420

Ala Arg

<210> 33
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 33
 cccgcccgcac gtgcacgtga gcc 23

<210> 34
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 34
 tgagccagcc caggaactgc ttg 23

<210> 35
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 35
 caagtgcgct gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36
 <211> 1771
 <212> DNA
 <213> Homo Sapien

<400> 36
 cccacgcgtc cgctgggtgtt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacacccaaa cgctcgcagc cacaaaagg 100
 atgaaatttc ttctggacat cctcctgctt ctcccgttac tgatcgtctg 150
 ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
 tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250
 ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
 tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350
 gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
 tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatatt 450
 agtaaataat gctgggtgtag tctatacatc agatttgttt gctacacaag 500
 atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
 actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600
 tgtcactgtg gcttcggcag ctggacatgt ctcggtcccc ttcttactgg 650
 cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
 gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
 tcctaatttc gtaaacactg gcttcatcaa aaatccaagt acaagtttgg 800
 gaccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
 ctgactgagc agaagatgat ttttattcca tcttctatag cttttttaac 900
 aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa 950
 aaatcagtgt taagtttgat gcagttattg gatataaaat gaaagcgcaa 1000
 taagcaccta gttttctgaa aactgattta ccagggttag gttgatgtca 1050
 tctaatagtg ccagaatttt aatgtttgaa cttctgtttt ttctaattat 1100
 cccattttct tcaatatcat ttttgaggct ttggcagtct tcatttacta 1150
 ccacttgttc tttagccaaa agctgattac atatgatata aacagagaaa 1200
 tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaatgac 1250
 tttattaaaa taatttccaa gattatttgt ggctcacctg aaggctttgc 1300
 aaaatttgta ccataaccgt ttatttaaca tatattttta ttttgattg 1350
 cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
 agaaacttca agctctctaa ataaaatgaa ggactatata tagtggatt 1450
 tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctaccatt 1500

gccactctgt ttcctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagagggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650
taaattggatc acacttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750
aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile
1 5 10 15
Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg
20 25 30
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

	200	205	210
Val Lys Thr Thr	Cys Leu Cys Pro Asn	Phe Val Asn Thr Gly	Phe
	215	220	225
Ile Lys Asn Pro	Ser Thr Ser Leu Gly	Pro Thr Leu Glu Pro	Glu
	230	235	240
Glu Val Val Asn	Arg Leu Met His Gly	Ile Leu Thr Glu Gln	Lys
	245	250	255
Met Ile Phe Ile	Pro Ser Ser Ile Ala	Phe Leu Thr Thr Leu	Glu
	260	265	270
Arg Ile Leu Pro	Glu Arg Phe Leu Ala	Val Leu Lys Arg Lys	Ile
	275	280	285
Ser Val Lys Phe	Asp Ala Val Ile Gly	Tyr Lys Met Lys Ala	Gln
	290	295	300

<210> 38
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 38
 ggtgaaggca gaaattggag atg 23

<210> 39
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 39
 atcccatgca tcagcctggt tacc 24

<210> 40
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 40
 gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41
 <211> 1377
 <212> DNA
 <213> Homo Sapien

<400> 41

gactagttct cttggagtct gggaggagga aagcggagcc ggcagggagc 50
gaaccaggac tggggtgacg gcagggcagg gggcgcttg ccggggagaa 100
gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgcga gaggacccc 200
gcgtccgggc tcccggtgcc agcgctatga ggccactcct cgtcctgctg 250
ctcctggggc tggcgccgg ctcgccccca ctggacgaca acaagatccc 300
cagcctctgc ccggggcacc ccggccttcc aggcacgccg ggccaccatg 350
gcagccaggg cttgccgggc cgcgatggcc gcgacggccg cgacggcgcg 400
cccggggctc cgggagagaa aggcgagggc gggaggccgg gactgccggg 450
acctcgaggg gaccccgggc cgcgaggaga ggcgggaccc gcggggccca 500
ccgggcctgc cggggagtgc tcggtgcctc cgcgatccgc cttcagcgcc 550
aagcgctccg agagccgggt gcctccgccg tctgacgcac ccttgccctt 600
cgaccgcgtg ctggtgaacg agcagggaca ttacgacgcc gtcaccggca 650
agttcacctg ccagggtgcct ggggtctact acttcgccgt ccatgccacc 700
gtctaccggg ccagcctgca gtttgatctg gtgaagaatg gcgaatccat 750
tgcctctttc ttccagtttt tcgggggggtg gcccaagcca gcctcgctct 800
cggggggggc catggtgagg ctggagcctg aggaccaagt gtgggtgcag 850
gtgggtgtgg gtgactacat tggcatctat gccagcatca agacagacag 900
caccttctcc ggatttctgg tgtactccga ctggcacagc tccccagtct 950
ttgcttagtg cccactgcaa agtgagctca tgctctcact cctagaagga 1000
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cttcctggtc ctctgcttct ctggatcctc cccacccct cctgctcctg 1300
gggccggccc ttttctcaga gatcactcaa taaacctaa aacctcata 1350
aaaaaaaaa aaaaaaaaaa aaaaaaa 1377

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

Met	Arg	Pro	Leu	Leu	Val	Leu	Leu	Leu	Leu	Gly	Leu	Ala	Ala	Gly	1	5	10	15
Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly	20	25	30	
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly	35	40	45	
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly	50	55	60	
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly	65	70	75	
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly	80	85	90	
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala	95	100	105	
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp	110	115	120	
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His	125	130	135	
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val	140	145	150	
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln	155	160	165	
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln	170	175	180	
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala	185	190	195	
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly	200	205	210	
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser	215	220	225	
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro	230	235	240	
Val	Phe	Ala																

<210> 43
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 43
 tacaggccca gtcaggacca gggg 24

 <210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 44
 agccagcctc gctctcgg 18

 <210> 45
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 45
 gtctgcgatc aggtctgg 18

 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 46
 gaaagaggca atggattcgc 20

 <210> 47
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 47
 gacttacact tgccagcaca gcac 24

 <210> 48
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccatgctgca tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctcttgccc tccttggcac cacctgggca 200
gaggtgtggc caccacagct gcaggagcag gctccgatgg ccggagccct 250
gaacaggaag gagagtttct tgctcctctc cctgcacaac cgcttgcgca 300
gctgggtcca gcccctgcg gctgacatgc ggaggctgga ctggagtgc 350
agcctggccc aactggctca agccagggca gccctctgtg gaatcccaac 400
cccagacctg gcatccggcc tgtggcgcac cctgcaagtg ggctggaaca 450
tgcagctgct gcccgcgggc ttggcgctct ttgttgaagt ggtcagccta 500
tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550
caacgccacc tgcaccact acacgcagct cgtgtgggccc acctcaagcc 600
agctgggctg tgggcggcac ctgtgctctg caggccagac agcgatagaa 650
gcctttgtct gtgcctactc ccccggaggc aactgggagg tcaacgggaa 700
gacaatcatc ccctataaga aggggtgcctg gtgttcgctc tgcacagcca 750
gtgtctcagg ctgcttcaaa gcctgggacc atgcaggggg gctctgtgag 800
gtccccagga atccttgtcg catgagctgc cagaaccatg gacgtctcaa 850
catcagcacc tgccactgcc actgtccccc tggctacacg ggcagatact 900
gccaagtgcg gtgcagcctg cagtgtgtgc acggccggtt ccgggaggag 950
gagtgtctcg gcgtctgtga catcggctac gggggagccc agtgtgccac 1000
caagggtgcat tttcccttcc acacctgtga cctgaggatc gacggagact 1050
gcttcatggg gtcttcagag gcagacacct attacagagc caggatgaaa 1100
tgtcagagga aaggcggggg gctggcccag atcaagagcc agaaagtgc 1150

ggacatcctc gccttctatc tgggccgcct ggagaccacc aacgaggtga 1200
 ctgacagtga cttcgagacc aggaacttct ggatcgggct cacctacaag 1250
 accgccaagg actccttccg ctgggccaca ggggagcacc aggccttcac 1300
 cagttttgcc tttgggcagc ctgacaacca cgggctggtg tggctgagtg 1350
 ctgccatggg gtttggaac tgcgtggagc tgcaggcttc agctgccttc 1400
 aactggaacg accagcgctg caaaacccga aaccgttaca tctgccagtt 1450
 tgcccaggag cacatctccc ggtggggccc agggctcctga ggctgacca 1500
 catggctccc tcgcctgccc tgggagcacc ggctctgctt acctgtctgc 1550
 ccacctgtct ggaacaaggg ccagggttaag accacatgcc tcatgtccaa 1600
 agaggtctca gaccttgac aatgccagaa gttgggcaga gagaggcagg 1650
 gaggccagtg agggccaggg agtgagtgtt agaagaagct ggggcccttc 1700
 gcctgctttt gattgggaag atgggcttca attagatggc gaaggagagg 1750
 acaccgccag tgggtccaaaa aggctgctct cttccacctg gccagaccc 1800
 tgtggggcag cggagcttcc ctgtggcatg aacccacagg ggtattaaat 1850
 tatgaatcag ctgaaaaaaaa aaaaaa 1876

<210> 50
 <211> 455
 <212> PRT
 <213> Homo Sapien

<400> 50
 Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
 1 5 10 15
 Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
 20 25 30
 Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
 35 40 45
 Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
 50 55 60
 Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
 65 70 75
 Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
 80 85 90
 Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
 95 100 105
 Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

110										115					120				
Val	Glu	Val	Val	Ser	Leu	Trp	Phe	Ala	Glu	Gly	Gln	Arg	Tyr	Ser					
				125					130					135					
His	Ala	Ala	Gly	Glu	Cys	Ala	Arg	Asn	Ala	Thr	Cys	Thr	His	Tyr					
				140					145					150					
Thr	Gln	Leu	Val	Trp	Ala	Thr	Ser	Ser	Gln	Leu	Gly	Cys	Gly	Arg					
				155					160					165					
His	Leu	Cys	Ser	Ala	Gly	Gln	Thr	Ala	Ile	Glu	Ala	Phe	Val	Cys					
				170					175					180					
Ala	Tyr	Ser	Pro	Gly	Gly	Asn	Trp	Glu	Val	Asn	Gly	Lys	Thr	Ile					
				185					190					195					
Ile	Pro	Tyr	Lys	Lys	Gly	Ala	Trp	Cys	Ser	Leu	Cys	Thr	Ala	Ser					
				200					205					210					
Val	Ser	Gly	Cys	Phe	Lys	Ala	Trp	Asp	His	Ala	Gly	Gly	Leu	Cys					
				215					220					225					
Glu	Val	Pro	Arg	Asn	Pro	Cys	Arg	Met	Ser	Cys	Gln	Asn	His	Gly					
				230					235					240					
Arg	Leu	Asn	Ile	Ser	Thr	Cys	His	Cys	His	Cys	Pro	Pro	Gly	Tyr					
				245					250					255					
Thr	Gly	Arg	Tyr	Cys	Gln	Val	Arg	Cys	Ser	Leu	Gln	Cys	Val	His					
				260					265					270					
Gly	Arg	Phe	Arg	Glu	Glu	Glu	Cys	Ser	Cys	Val	Cys	Asp	Ile	Gly					
				275					280					285					
Tyr	Gly	Gly	Ala	Gln	Cys	Ala	Thr	Lys	Val	His	Phe	Pro	Phe	His					
				290					295					300					
Thr	Cys	Asp	Leu	Arg	Ile	Asp	Gly	Asp	Cys	Phe	Met	Val	Ser	Ser					
				305					310					315					
Glu	Ala	Asp	Thr	Tyr	Tyr	Arg	Ala	Arg	Met	Lys	Cys	Gln	Arg	Lys					
				320					325					330					
Gly	Gly	Val	Leu	Ala	Gln	Ile	Lys	Ser	Gln	Lys	Val	Gln	Asp	Ile					
				335					340					345					
Leu	Ala	Phe	Tyr	Leu	Gly	Arg	Leu	Glu	Thr	Thr	Asn	Glu	Val	Thr					
				350					355					360					
Asp	Ser	Asp	Phe	Glu	Thr	Arg	Asn	Phe	Trp	Ile	Gly	Leu	Thr	Tyr					
				365					370					375					
Lys	Thr	Ala	Lys	Asp	Ser	Phe	Arg	Trp	Ala	Thr	Gly	Glu	His	Gln					
				380					385					390					
Ala	Phe	Thr	Ser	Phe	Ala	Phe	Gly	Gln	Pro	Asp	Asn	His	Gly	Leu					
				395					400					405					

Val	Trp	Leu	Ser	Ala	Ala	Met	Gly	Phe	Gly	Asn	Cys	Val	Glu	Leu
				410					415					420
Gln	Ala	Ser	Ala	Ala	Phe	Asn	Trp	Asn	Asp	Gln	Arg	Cys	Lys	Thr
				425					430					435
Arg	Asn	Arg	Tyr	Ile	Cys	Gln	Phe	Ala	Gln	Glu	His	Ile	Ser	Arg
				440					445					450
Trp	Gly	Pro	Gly	Ser										
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<210> 51
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 51
 aggaacttct ggatcgggct cacc 24

<210> 52
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 52
 gggctctgggc caggtggaag agag 24

<210> 53
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 53
 gccaaaggact ccttccgctg ggccacaggg gagcaccagg ccttc 45

<210> 54
 <211> 2331
 <212> DNA
 <213> Homo Sapien

<400> 54
 cggacgcgtg ggctgggcgc tgcaaagcgt gtcccgcgag gtcccgcgag 50
 gtcccgcgcc ctgcgccgc catgctcctg ctgctggggc tgtgcctggg 100
 gctgtccctg tgtgtggggt cgcaggaaga ggcgcagagc tggggccact 150
 cttcggagca ggatggactc agggctccga ggcaagtcag actgttgag 200

aggctgaaaa ccaaacccttt gatgacagaa ttctcagtga agtctacat 250
 catttcccggt tatgccttca ctacggtttc ctgcagaatg ctgaacagag 300
 cttctgaaga ccaggacatt gagttccaga tgcagattcc agctgcagct 350
 ttcatcacca acttcactat gcttattgga gacaagggtg atcagggcga 400
 aattacagag agagaaaaga agagtgggta tagggtaaaa gagaaaagga 450
 ataaaaccac agaagaaaat ggagagaagg ggactgaaat attcagagct 500
 tctgcagtga ttcccagcaa ggacaaagcc gcctttttcc tgagttatga 550
 ggagcttctg cagaggcgcc tgggcaagta cgagcacagc atcagcgtgc 600
 ggccccagca gctgtccggg aggctgagcg tggacgtgaa tatcctggag 650
 agcgcgggca tgcgatccct ggaggtgctg ccgcttcaca acagcaggca 700
 gaggggagct gggcgcgggg aagatgattc tgggcctccc ccatctactg 750
 tcattaacca aaatgaaaca tttgccaaca taatttttaa acctactgta 800
 gtacaacaag ccaggattgc ccagaatgga attttgggag actttatcat 850
 tagatatgac gtcaatagag aacagagcat tggggacatc caggttctaa 900
 atggctatth tgtgcactac tttgctccta aagaccttcc tcctttaccc 950
 aagaatgtgg tattcgtgct tgacagcagt gcttctatgg tgggaaccaa 1000
 actccggcag accaaggatg ccctcttcac aattctccat gacctccgac 1050
 cccaggaccg tttcagtatc attggatttt ccaaccggat caaagtatgg 1100
 aaggaccact tgatatcagt cactccagac agcatcaggg atgggaaagt 1150
 gtacattcac catatgtcac ccactggagg cacagacatc aacggggccc 1200
 tgcagagggc catcaggctc ctcaacaagt acgtggcca cagtggcatt 1250
 ggagaccgga gcgtgtccct catcgtcttc ctgacggatg ggaagcccac 1300
 ggtcggggag acgcacaccc tcaagatcct caacaacacc cgagaggccg 1350
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 aaatcaggac cccgctcctc tctgacatcc gcatcgatta tccccccagc 1550
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 caggcctgga ggcgatggag agggggacac caaccacatc gagcgtctct 1800
 ggagctacct caccacaaag gagctgctga gctcctggct gcaaagtgac 1850
 gatgaaccgg agaaggagcg gctgcggcag cgggcccagg ccctggctgt 1900
 gagctaccgc ttctcactc ccttcacctc catgaagctg agggggcccg 1950
 tcccacgcac ggatggcctg gaggaggccc acggcatgtc ggctgccatg 2000
 ggaccgaac cggtggtgca gagcgtgcga ggagctggca cgcagccagg 2050
 acctttgtc aagaagccaa actccgtcaa aaaaaaacia aacaaaacia 2100
 aaaaaagaca tgggagagat ggtgtttttc ctctccacca cctggggata 2150
 cgatgagaag atggccacct gcaagccagg aagacggccc tcaccagaca 2200
 ccatgtctgc tggcaccttg atcttgacc tcccagcctc cagaactgtg 2250
 agaaataaat gtgttttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
 <211> 694
 <212> PRT
 <213> Homo Sapien

<400> 55
 Met Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
 1 5 10 15
 Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
 20 25 30
 Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
 35 40 45
 Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
 50 55 60
 Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
 65 70 75
 Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
 80 85 90
 Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
 95 100 105
 Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
 110 115 120

Arg Val Lys Glu	Lys Arg Asn Lys Thr	Thr Glu Glu Asn Gly Glu	125	130	135
Lys Gly Thr Glu	Ile Phe Arg Ala Ser	Ala Val Ile Pro Ser Lys	140	145	150
Asp Lys Ala Ala	Phe Phe Leu Ser Tyr	Glu Glu Leu Leu Gln Arg	155	160	165
Arg Leu Gly Lys	Tyr Glu His Ser Ile	Ser Val Arg Pro Gln Gln	170	175	180
Leu Ser Gly Arg	Leu Ser Val Asp Val	Asn Ile Leu Glu Ser Ala	185	190	195
Gly Ile Ala Ser	Leu Glu Val Leu Pro	Leu His Asn Ser Arg Gln	200	205	210
Arg Gly Ser Gly	Arg Gly Glu Asp Asp	Ser Gly Pro Pro Pro Ser	215	220	225
Thr Val Ile Asn	Gln Asn Glu Thr Phe	Ala Asn Ile Ile Phe Lys	230	235	240
Pro Thr Val Val	Gln Gln Ala Arg Ile	Ala Gln Asn Gly Ile Leu	245	250	255
Gly Asp Phe Ile	Ile Arg Tyr Asp Val	Asn Arg Glu Gln Ser Ile	260	265	270
Gly Asp Ile Gln	Val Leu Asn Gly Tyr	Phe Val His Tyr Phe Ala	275	280	285
Pro Lys Asp Leu	Pro Pro Leu Pro Lys	Asn Val Val Phe Val Leu	290	295	300
Asp Ser Ser Ala	Ser Met Val Gly Thr	Lys Leu Arg Gln Thr Lys	305	310	315
Asp Ala Leu Phe	Thr Ile Leu His Asp	Leu Arg Pro Gln Asp Arg	320	325	330
Phe Ser Ile Ile	Gly Phe Ser Asn Arg	Ile Lys Val Trp Lys Asp	335	340	345
His Leu Ile Ser	Val Thr Pro Asp Ser	Ile Arg Asp Gly Lys Val	350	355	360
Tyr Ile His His	Met Ser Pro Thr Gly	Gly Thr Asp Ile Asn Gly	365	370	375
Ala Leu Gln Arg	Ala Ile Arg Leu Leu	Asn Lys Tyr Val Ala His	380	385	390
Ser Gly Ile Gly	Asp Arg Ser Val Ser	Leu Ile Val Phe Leu Thr	395	400	405
Asp Gly Lys Pro	Thr Val Gly Glu Thr	His Thr Leu Lys Ile Leu			

				410						415					420
Asn	Asn	Thr	Arg	Glu	Ala	Ala	Arg	Gly	Gln	Val	Cys	Ile	Phe	Thr	
				425					430					435	
Ile	Gly	Ile	Gly	Asn	Asp	Val	Asp	Phe	Arg	Leu	Leu	Glu	Lys	Leu	
				440					445					450	
Ser	Leu	Glu	Asn	Cys	Gly	Leu	Thr	Arg	Arg	Val	His	Glu	Glu	Glu	
				455					460					465	
Asp	Ala	Gly	Ser	Gln	Leu	Ile	Gly	Phe	Tyr	Asp	Glu	Ile	Arg	Thr	
				470					475					480	
Pro	Leu	Leu	Ser	Asp	Ile	Arg	Ile	Asp	Tyr	Pro	Pro	Ser	Ser	Val	
				485					490					495	
Val	Gln	Ala	Thr	Lys	Thr	Leu	Phe	Pro	Asn	Tyr	Phe	Asn	Gly	Ser	
				500					505					510	
Glu	Ile	Ile	Ile	Ala	Gly	Lys	Leu	Val	Asp	Arg	Lys	Leu	Asp	His	
				515					520					525	
Leu	His	Val	Glu	Val	Thr	Ala	Ser	Asn	Ser	Lys	Lys	Phe	Ile	Ile	
				530					535					540	
Leu	Lys	Thr	Asp	Val	Pro	Val	Arg	Pro	Gln	Lys	Ala	Gly	Lys	Asp	
				545					550					555	
Val	Thr	Gly	Ser	Pro	Arg	Pro	Gly	Gly	Asp	Gly	Glu	Gly	Asp	Thr	
				560					565					570	
Asn	His	Ile	Glu	Arg	Leu	Trp	Ser	Tyr	Leu	Thr	Thr	Lys	Glu	Leu	
				575					580					585	
Leu	Ser	Ser	Trp	Leu	Gln	Ser	Asp	Asp	Glu	Pro	Glu	Lys	Glu	Arg	
				590					595					600	
Leu	Arg	Gln	Arg	Ala	Gln	Ala	Leu	Ala	Val	Ser	Tyr	Arg	Phe	Leu	
				605					610					615	
Thr	Pro	Phe	Thr	Ser	Met	Lys	Leu	Arg	Gly	Pro	Val	Pro	Arg	Met	
				620					625					630	
Asp	Gly	Leu	Glu	Glu	Ala	His	Gly	Met	Ser	Ala	Ala	Met	Gly	Pro	
				635					640					645	
Glu	Pro	Val	Val	Gln	Ser	Val	Arg	Gly	Ala	Gly	Thr	Gln	Pro	Gly	
				650					655					660	
Pro	Leu	Leu	Lys	Lys	Pro	Asn	Ser	Val	Lys	Lys	Lys	Gln	Asn	Lys	
				665					670					675	
Thr	Lys	Lys	Arg	His	Gly	Arg	Asp	Gly	Val	Phe	Pro	Leu	His	His	
				680					685					690	
Leu	Gly	Ile	Arg												

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatatc agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cggacgcgtg gggtgcccga catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcggcggc gcctcccggg ctccggcttc 100
tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgaccat 200

cagttgccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250
ccaacaggca gaccatttat ttcagggaact tcaggccttt gaaggacagc 300
aggtttcagt tgctgaattt ttctagcagt gaactcaaag tatcattgac 350
aaacgtctca atttctgatg aaggaagata cttttgccag ctctataaccg 400
atccccaca ggaaagttac accaccatca cagtcctggt cccaccacgt 450
aatctgatga tcgatatcca gaaagacact gcggtggaag gtgaggagat 500
tgaagtcaac tgcactgcta tggccagcaa gccagccacg actatcaggt 550
ggttcaaagg gaacacagag ctaaaaggca aatcggaggt ggaagagtgg 600
tcagacatgt aactgtgac cagtcagctg atgctgaagg tgcacaagga 650
ggacgatggg gtcccagtga tctgccaggt ggagcaccct gcggtcactg 700
gaaacctgca gaccagcgg tatctagaag tacagtataa gcctcaagtg 750
cacattcaga tgacttatcc tctacaaggc ttaaccggg aaggggacgc 800
gcttgagtta acatgtgaag ccatcgggaa gcccagcct gtgatggtaa 850
cttgggtgag agtcgatgat gaaatgcctc aacacgccgt actgtctggg 900
cccaacctgt tcatcaataa cctaaacaaa acagataatg gtacataaccg 950
ctgtgaagct tcaaacatag tggggaaaagc tcaactcgat tatatgctgt 1000
atgtatacga tccccccaca actatccctc ctcccacaac aaccaccacc 1050
accaccacca ccaccaccac caccatcctt accatcatca cagattcccg 1100
agcaggtgaa gaaggctcga tcagggcagt ggatcatgcc gtgatcgggtg 1150
gcgctcgtggc ggtgggtggg ttcgccatgc tgtgcttgct catcattctg 1200
gggcgctatt ttgccagaca taaagggtaca tacttcactc atgaagccaa 1250
aggagccgat gacgcagcag acgcagacac agctataatc aatgcagaag 1300
gaggacagaa caactccgaa gaaaagaaag agtacttcat ctagatcagc 1350
ctttttgttt caatgaggtg tccaactggc cctatttaga tgataaagag 1400
acagtgatat tgg 1413

<210> 61

<211> 440

<212> PRT

<213> Homo Sapien

<400> 61

Met	Ala	Ser	Val	Val	Leu	Pro	Ser	Gly	Ser	Gln	Cys	Ala	Ala	Ala
1				5				10					15	

Ala	Ala	Ala	Ala	Ala	Pro	Pro	Gly	Leu	Arg	Leu	Leu	Leu	Leu	Leu	20	25	30
Phe	Ser	Ala	Ala	Ala	Leu	Ile	Pro	Thr	Gly	Asp	Gly	Gln	Asn	Leu	35	40	45
Phe	Thr	Lys	Asp	Val	Thr	Val	Ile	Glu	Gly	Glu	Val	Ala	Thr	Ile	50	55	60
Ser	Cys	Gln	Val	Asn	Lys	Ser	Asp	Asp	Ser	Val	Ile	Gln	Leu	Leu	65	70	75
Asn	Pro	Asn	Arg	Gln	Thr	Ile	Tyr	Phe	Arg	Asp	Phe	Arg	Pro	Leu	80	85	90
Lys	Asp	Ser	Arg	Phe	Gln	Leu	Leu	Asn	Phe	Ser	Ser	Ser	Glu	Leu	95	100	105
Lys	Val	Ser	Leu	Thr	Asn	Val	Ser	Ile	Ser	Asp	Glu	Gly	Arg	Tyr	110	115	120
Phe	Cys	Gln	Leu	Tyr	Thr	Asp	Pro	Pro	Gln	Glu	Ser	Tyr	Thr	Thr	125	130	135
Ile	Thr	Val	Leu	Val	Pro	Pro	Arg	Asn	Leu	Met	Ile	Asp	Ile	Gln	140	145	150
Lys	Asp	Thr	Ala	Val	Glu	Gly	Glu	Glu	Ile	Glu	Val	Asn	Cys	Thr	155	160	165
Ala	Met	Ala	Ser	Lys	Pro	Ala	Thr	Thr	Ile	Arg	Trp	Phe	Lys	Gly	170	175	180
Asn	Thr	Glu	Leu	Lys	Gly	Lys	Ser	Glu	Val	Glu	Glu	Trp	Ser	Asp	185	190	195
Met	Tyr	Thr	Val	Thr	Ser	Gln	Leu	Met	Leu	Lys	Val	His	Lys	Glu	200	205	210
Asp	Asp	Gly	Val	Pro	Val	Ile	Cys	Gln	Val	Glu	His	Pro	Ala	Val	215	220	225
Thr	Gly	Asn	Leu	Gln	Thr	Gln	Arg	Tyr	Leu	Glu	Val	Gln	Tyr	Lys	230	235	240
Pro	Gln	Val	His	Ile	Gln	Met	Thr	Tyr	Pro	Leu	Gln	Gly	Leu	Thr	245	250	255
Arg	Glu	Gly	Asp	Ala	Leu	Glu	Leu	Thr	Cys	Glu	Ala	Ile	Gly	Lys	260	265	270
Pro	Gln	Pro	Val	Met	Val	Thr	Trp	Val	Arg	Val	Asp	Asp	Glu	Met	275	280	285
Pro	Gln	His	Ala	Val	Leu	Ser	Gly	Pro	Asn	Leu	Phe	Ile	Asn	Asn	290	295	300
Leu	Asn	Lys	Thr	Asp	Asn	Gly	Thr	Tyr	Arg	Cys	Glu	Ala	Ser	Asn			

305	310	315
Ile Val Gly Lys Ala His Ser Asp Tyr	Met Leu Tyr Val Tyr Asp	
320	325	330
Pro Pro Thr Thr Ile Pro Pro Pro Thr	Thr Thr Thr Thr Thr Thr	
335	340	345
Thr Thr Thr Thr Thr Thr Ile Leu Thr	Ile Ile Thr Asp Ser Arg	
350	355	360
Ala Gly Glu Glu Gly Ser Ile Arg Ala	Val Asp His Ala Val Ile	
365	370	375
Gly Gly Val Val Ala Val Val Val Phe	Ala Met Leu Cys Leu Leu	
380	385	390
Ile Ile Leu Gly Arg Tyr Phe Ala Arg	His Lys Gly Thr Tyr Phe	
395	400	405
Thr His Glu Ala Lys Gly Ala Asp Asp	Ala Ala Asp Ala Asp Thr	
410	415	420
Ala Ile Ile Asn Ala Glu Gly Gly Gln	Asn Asn Ser Glu Glu Lys	
425	430	435
Lys Glu Tyr Phe Ile		
440		

<210> 62
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 62
 ggcttctgct gttgctcttc tccg 24

<210> 63
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 63
 gtacactgtg accagtcagc 20

<210> 64
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 64
 atcatcacag attcccgagc 20

<210> 65
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 65
 ttcaatctcc tcaccttcca ccgc 24

<210> 66
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 66
 atagctgtgt ctgcgtctgc tgcg 24

<210> 67
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 67
 cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
 <211> 2555
 <212> DNA
 <213> Homo Sapien

<400> 68
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aaaaa 2555

<210> 69
<211> 598
<212> PRT
<213> Homo Sapien

<400> 69
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Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
20 25 30
Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45
Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
50 55 60
Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
65 70 75
Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
80 85 90
Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
95 100 105
Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

110				115				120						
Ala	Leu	Arg	Leu	Ala	Gly	Leu	Gly	Leu	Gln	Gln	Leu	Asp	Glu	Gly
			125						130					135
Leu	Phe	Ser	Arg	Leu	Arg	Asn	Leu	His	Asp	Leu	Asp	Val	Ser	Asp
			140						145					150
Asn	Gln	Leu	Glu	Arg	Val	Pro	Pro	Val	Ile	Arg	Gly	Leu	Arg	Gly
			155						160					165
Leu	Thr	Arg	Leu	Arg	Leu	Ala	Gly	Asn	Thr	Arg	Ile	Ala	Gln	Leu
			170						175					180
Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp
			185						190					195
Val	Ser	Asn	Leu	Ser	Leu	Gln	Ala	Leu	Pro	Gly	Asp	Leu	Ser	Gly
			200						205					210
Leu	Phe	Pro	Arg	Leu	Arg	Leu	Leu	Ala	Ala	Ala	Arg	Asn	Pro	Phe
			215						220					225
Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu
			230						235					240
Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe
			245						250					255
Pro	Pro	Lys	Asn	Ala	Gly	Arg	Leu	Leu	Leu	Glu	Leu	Asp	Tyr	Ala
			260						265					270
Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr
			275						280					285
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu
			290						295					300
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro
			305						310					315
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln
			320						325					330
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys
			335						340					345
His	Leu	Gly	Thr	Arg	His	His	Leu	Ala	Cys	Leu	Cys	Pro	Glu	Gly
			350						355					360
Phe	Thr	Gly	Leu	Tyr	Cys	Glu	Ser	Gln	Met	Gly	Gln	Gly	Thr	Arg
			365						370					375
Pro	Ser	Pro	Thr	Pro	Val	Thr	Pro	Arg	Pro	Pro	Arg	Ser	Leu	Thr
			380						385					390
Leu	Gly	Ile	Glu	Pro	Val	Ser	Pro	Thr	Ser	Leu	Arg	Val	Gly	Leu
			395						400					405

Gln Arg Tyr Leu Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
410	415 420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr
425	430 435
Leu Arg Leu Pro Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu
440	445 450
Arg Pro Asn Ala Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro
455	460 465
Gly Arg Val Pro Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr
470	475 480
Pro Pro Ala Val His Ser Asn His Ala	Pro Val Thr Gln Ala Arg
485	490 495
Glu Gly Asn Leu Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val
500	505 510
Leu Leu Ala Ala Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg
515	520 525
Arg Gly Arg Ala Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val
530	535 540
Gly Pro Gly Ala Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro
545	550 555
Leu Glu Pro Gly Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu
560	565 570
Pro Ser Gly Ser Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly
575	580 585
Pro Gly Leu Gln Ser Pro Leu His Ala	Lys Pro Tyr Ile
590	595

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg ccccaccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71
 cggttctggg gacgttaggg ctcg 24

 <210> 72
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 72
 ctgcccaccg tccacctgcc tcaat 25

 <210> 73
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 73
 aggactgccc accgtccacc tgcctcaatg ggggcacatg ccacc 45

 <210> 74
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 74
 acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

 <210> 75
 <211> 1077
 <212> DNA
 <213> Homo Sapien

 <400> 75
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 cttgcttctg ttcccatgg agctccg 1077

<210> 76
 <211> 250
 <212> PRT
 <213> Homo Sapien

<400> 76
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 20 25 30
 Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
 35 40 45
 Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
 50 55 60
 Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
 65 70 75
 Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
 80 85 90
 Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
 95 100 105
 Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
 110 115 120

Val	Pro	Ile	Asn	Ala	Thr	Ser	Lys	Asp	Asp	Ser	Asp	Val	Thr	Glu	125	130	135
Val	Met	Trp	Gln	Pro	Ala	Leu	Arg	Arg	Gly	Arg	Gly	Leu	Gln	Ala	140	145	150
Gln	Gly	Tyr	Gly	Val	Arg	Ile	Gln	Asp	Ala	Gly	Val	Tyr	Leu	Leu	155	160	165
Tyr	Ser	Gln	Val	Leu	Phe	Gln	Asp	Val	Thr	Phe	Thr	Met	Gly	Gln	170	175	180
Val	Val	Ser	Arg	Glu	Gly	Gln	Gly	Arg	Gln	Glu	Thr	Leu	Phe	Arg	185	190	195
Cys	Ile	Arg	Ser	Met	Pro	Ser	His	Pro	Asp	Arg	Ala	Tyr	Asn	Ser	200	205	210
Cys	Tyr	Ser	Ala	Gly	Val	Phe	His	Leu	His	Gln	Gly	Asp	Ile	Leu	215	220	225
Ser	Val	Ile	Ile	Pro	Arg	Ala	Arg	Ala	Lys	Leu	Asn	Leu	Ser	Pro	230	235	240
His	Gly	Thr	Phe	Leu	Gly	Phe	Val	Lys	Leu						245	250	

<210> 77
 <211> 2849
 <212> DNA
 <213> Homo Sapien

<400> 77
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<210> 78

<211> 281

<212> PRT

<213> Homo Sapien

<400> 78

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				20					25					30
Gln	Gly	Glu	Gln	Gln	Glu	Trp	Glu	Gly	Thr	Glu	Glu	Leu	Pro	Ser
				35					40					45
Pro	Pro	Asp	His	Ala	Glu	Arg	Ala	Glu	Glu	Gln	His	Glu	Lys	Tyr
				50					55					60
Arg	Pro	Ser	Gln	Asp	Gln	Gly	Leu	Pro	Ala	Ser	Arg	Cys	Leu	Arg
				65					70					75
Cys	Cys	Asp	Pro	Gly	Thr	Ser	Met	Tyr	Pro	Ala	Thr	Ala	Val	Pro
				80					85					90
Gln	Ile	Asn	Ile	Thr	Ile	Leu	Lys	Gly	Glu	Lys	Gly	Asp	Arg	Gly
				95					100					105
Asp	Arg	Gly	Leu	Gln	Gly	Lys	Tyr	Gly	Lys	Thr	Gly	Ser	Ala	Gly

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Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly	125		130		135
Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val	140		145		150
Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val	155		160		165
Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met	170		175		180
Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe	185		190		195
Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His	200		205		210
Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val	215		220		225
Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu	230		235		240
Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg	245		250		255
Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe	260		265		270
Ser Gly Tyr Leu Val Lys His Ala Thr Glu Pro	275		280		

<210> 79

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 79

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<210> 80

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 80

ctgaagaagt agaggccggg cacg 24

<210> 81

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccgggtgctt gcgctgctgt gacccccggtta cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
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ggcgcggggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
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gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
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tccaacttaa ctttgaacac agggaatgtg tataacccta ctgcactttc 1250
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gtagggaggc cagtccaggc agttcctccc agggcagtggt tccagaaaat 1350
cagtaaggcc ttccatttga aaaatggctt cttatcgggt ccctgctctt 1400
tggtgtcctg ttcttggtga taggcctcgt cctcctgggt agaatecttt 1450
cggaatcact ccgcaggaaa cgttactcaa gactggatta tttgatcaat 1500
gggatctatg tggacatcta aggatggaac tcggtgtctc ttaattcatt 1550
tagtaaccag aagcccaaat gcaatgagtt tctgctgact tgctagtctt 1600
agcaggaggt tgtattttga agacaggaaa atgccccctt ctgctttcct 1650
tttttttttt ggagacagag tcttgctctg ttgcccaggc tggagtgcag 1700
tagcacgatc tcggtctca ccgcaacctc cgtctcctgg gttcaagcga 1750
ttctcctgcc tcagcctcct aagtatctgg gattacaggc atgtgccacc 1800
acacctgggt gatttttgta tttttagtag agacgggggt tcaccatggt 1850
ggtcaggctg gtctcaaact cctgacctag tgatccaccc tcctcggcct 1900
cccaaagtgc tgggattaca ggcattgagc accacagctg gcccccttct 1950
gttttatggt tggtttttga gaaggaatga agtgggaacc aaattaggta 2000
attttgggta atctgtctct aaaatattag ctaaaaacaa agctctatgt 2050
aaagtaataa agtataattg ccatataaat ttcaaaattc aactggcttt 2100
tatgcaaaga aacagggttag gacatctagg ttccaattca ttcacattct 2150
tggttccaga taaaatcaac tgtttatata aatttctaata ggatttgctt 2200
ttcttttttat atggattcct ttaaaactta ttccagatgt agttccttcc 2250
aattaaatat ttgaataaat cttttgttac tcaa 2284

<210> 83

<211> 431

<212> PRT

<213> Homo Sapien

<400> 83

Met	Phe	Phe	Gly	Gly	Glu	Gly	Ser	Leu	Thr	Tyr	Thr	Leu	Val	Ile
1				5					10					15

Ile	Cys	Phe	Leu	Thr	Leu	Arg	Leu	Ser	Ala	Ser	Gln	Asn	Cys	Leu	20	25	30
Lys	Lys	Ser	Leu	Glu	Asp	Val	Val	Ile	Asp	Ile	Gln	Ser	Ser	Leu	35	40	45
Ser	Lys	Gly	Ile	Arg	Gly	Asn	Glu	Pro	Val	Tyr	Thr	Ser	Thr	Gln	50	55	60
Glu	Asp	Cys	Ile	Asn	Ser	Cys	Cys	Ser	Thr	Lys	Asn	Ile	Ser	Gly	65	70	75
Asp	Lys	Ala	Cys	Asn	Leu	Met	Ile	Phe	Asp	Thr	Arg	Lys	Thr	Ala	80	85	90
Arg	Gln	Pro	Asn	Cys	Tyr	Leu	Phe	Phe	Cys	Pro	Asn	Glu	Glu	Ala	95	100	105
Cys	Pro	Leu	Lys	Pro	Ala	Lys	Gly	Leu	Met	Ser	Tyr	Arg	Ile	Ile	110	115	120
Thr	Asp	Phe	Pro	Ser	Leu	Thr	Arg	Asn	Leu	Pro	Ser	Gln	Glu	Leu	125	130	135
Pro	Gln	Glu	Asp	Ser	Leu	Leu	His	Gly	Gln	Phe	Ser	Gln	Ala	Val	140	145	150
Thr	Pro	Leu	Ala	His	His	His	Thr	Asp	Tyr	Ser	Lys	Pro	Thr	Asp	155	160	165
Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	Phe	Gly	Ser	Ser	Asp	170	175	180
His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	Ser	Ala	Gln	Leu	185	190	195
Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	Gln	Phe	Ser	200	205	210
Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	Ser	Ala	215	220	225
Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	Ala	230	235	240
Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr	245	250	255
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	260	265	270
Val	Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	275	280	285
Val	Phe	Thr	Arg	Ala	Ala	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr	Thr	290	295	300
Ala	Val	Leu	Thr	Thr	Thr	Phe	Gln	Ala	Pro	Thr	Asp	Ser	Lys	Gly			

305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu	Ile Ser Asn Leu Thr Leu	
320	325	330
Asn Thr Gly Asn Val Tyr Asn Pro Thr	Ala Leu Ser Met Ser Asn	
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr	Ala Ser Trp Glu Gly Arg	
350	355	360
Glu Ala Ser Pro Gly Ser Ser Ser Gln	Gly Ser Val Pro Glu Asn	
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp	Leu Leu Ile Gly Ser Leu	
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile	Gly Leu Val Leu Leu Gly	
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg	Lys Arg Tyr Ser Arg Leu	
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val	Asp Ile	
425	430	

<210> 84
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 84
 agggaggatt atccttgacc tttgaagacc 30

<210> 85
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 85
 gaagcaagtg cccagctc 18

<210> 86
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 86
 cgggtccctg ctcttttg 18

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
caccgtagct gggagcgcac tcac 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
cctggaagat gcgcccattg gctgggtggcc tgctcaagggt ggtgttcgtg 50
gtcttcgcct ccttgtgtgc ctggtattcg gggtagctgc tcgcagagct 100
cattccagat gcacccctgt ccagtgtgc ctatagcatc cgcagcatcg 150
gggagaggcc tgtcctcaaa gctccagtcc ccaaaaggca aaaatgtgac 200
cactggactc cctgcccatac tgacacctat gcctacagggt tactcagcgg 250
agggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctgggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctgggaatgt gacagcaaca cgatgttttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatgggtg acctatgacg acggaagcac aagactgaat 500

aacgatgcc aagaatgccat agaagcactt ggaagtaaag aaatcaggaa 550
catgaaattc aggtctagct gggatatttat tgcagcaaaa ggcttggaac 600
tcccttccga aattcagaga gaaaagatca accactctga tgctaagaac 650
aacagatatt ctggctggcc tgcagagatc cagatagaag gctgcatacc 700
caaagaacga agctgacact gcagggctct gagtaaagt gttctgtata 750
aacaatgca gctggaatcg ctcaagaatc ttatttttct aaatccaaca 800
gccccatatt gatgagtatt ttgggtttgt tgtaaacc aaacatttg 850
ctagtgtgat caaatcttgg tacgcagtat ttttatacca gtattttatg 900
tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950
aaaaaaa 957

<210> 91
<211> 235
<212> PRT
<213> Homo Sapien

<400> 91
Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val
1 5 10 15
Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
20 25 30
Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
35 40 45
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75
Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135
Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
140 145 150
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

Asp	Ala	Lys	Asn	Ala	Ile	Glu	Ala	Leu	Gly	Ser	Lys	Glu	Ile	Arg
			170						175					180
Asn	Met	Lys	Phe	Arg	Ser	Ser	Trp	Val	Phe	Ile	Ala	Ala	Lys	Gly
			185						190					195
Leu	Glu	Leu	Pro	Ser	Glu	Ile	Gln	Arg	Glu	Lys	Ile	Asn	His	Ser
			200						205					210
Asp	Ala	Lys	Asn	Asn	Arg	Tyr	Ser	Gly	Trp	Pro	Ala	Glu	Ile	Gln
			215						220					225
Ile	Glu	Gly	Cys	Ile	Pro	Lys	Glu	Arg	Ser					
			230						235					

<210> 92
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 92
 aatgtgacca ctggactccc 20

<210> 93
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 93
 aggcttgga ctccttc 18

<210> 94
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 94
 aagattcttg agcgattcca gctg 24

<210> 95
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 95
 aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

<210> 96
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 96
 ctcaagaagc acgcgtactg c 21

 <210> 97
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 97
 ccaacctcag cttccgcctc tacga 25

 <210> 98
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 98
 catccaggct cgccactg 18

 <210> 99
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 99
 tggcaaggaa tgggaacagt 20

 <210> 100
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 100
 atgctgccag acctgatcgc agaca 25

 <210> 101
 <211> 19
 <212> DNA

<213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 101
 gggcagaaat ccagccact 19
 <210> 102
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 102
 cccttcgcct gcttttga 18
 <210> 103
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 103
 gccatctaatt tgaagcccat cttccca 27
 <210> 104
 <211> 19
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 104
 ctggcgggtgt cctctcctt 19
 <210> 105
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 105
 cctcgggtctc ctcatctgtg a 21
 <210> 106
 <211> 20
 <212> DNA
 <213> Artificial Sequence
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<223> Synthetic oligonucleotide probe

<400> 106
tggcccagct gacgagccct 20

<210> 107
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 107
ctcataggca ctcggttctg g 21

<210> 108
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 108
tggctcccag cttggaaga 19

<210> 109
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 109
cagctcttgg ctgtctccag tatgtaccca 30

<210> 110
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 110
gatgcctctg ttctgcaca t 21

<210> 111
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 111

ggattctaatt acgactcact atagggctgc ccgcaacccc ttcaactg 48

<210> 112

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

ctatgaaatt aaccctcact aaagggaccg cagctgggtg accgtgta 48

<210> 113

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 113

ggattctaatt acgactcact atagggccgc cccgccacct cct 43

<210> 114

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 114

ctatgaaatt aaccctcact aaagggactc gagacaccac ctgaccca 48

<210> 115

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 115

ggattctaatt acgactcact atagggccca aggaaggcag gagactct 48

<210> 116

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide probe

<400> 116

ctatgaaatt aaccctcact aaagggacta gggggtggga atgaaaag 48

<210> 117

<211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 117
 ggattctaatacgcactcactatagggccccctgagctctcccgtgta 48

 <210> 118
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 118
 ctatgaaataaacctcactaaagggaggctcgccactggtcgtaga 48

 <210> 119
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 119
 ggattctaatacgcactcactatagggcaaggagccgggacccaggaga 48

 <210> 120
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 120
 ctatgaaataaacctcactaaagggagggggcccttggtgctgagt 47